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Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Assistant Commissioner

PORTSMOUTH, NH – YORK, ME
NHDOT PROJECT 16189B
RE: NHDOT RFP 2021-003
Proposer Questions and Responses

April 29, 2021

To All Qualified Proposing Teams:

The New Hampshire Department of Transportation (NHDOT) is pleased to provide a list of all of the Proposer questions received and responses to those questions below.

- 1) **Q** Please confirm when the forms included in Appendix G-3 are to be completed and submitted. With the proposal or post-award?
A Appendix G-3 is not needed for the Proposal. Appendix G-3 needs to be filled out after bid opening; only needs to be filled out by the apparent successful best value bidder; and will need to be done before the Contract goes to G&C for approval.
- 2) **Q** In the Special Provisions, Amendment to Section 619, Barrier Gate, Section 3.7 Warranty Requirements - states that the warranty is for one year following the date of project acceptance. This appears to conflict with the two-year warranty language elsewhere. Is this correct?
A This was probably a base spec holdover that we missed. We would like to have 2 years of warranty on the gate. We will clarify the wording as part of a future Addendum.
- 3) **Q** Will the Owner accept as one of the required relevant projects, a project where design and/or construction is substantially complete?
A Yes the Owners will accept reference to a project where the design and/or construction is substantially complete.
- 4) **Q** The Specifications per 619.2.13.14 for the barrier warning gate call for a “Aluminum Double-Rail Gate Arm” but the drawing shows a “Tri-Rail Gate Arm”. Please clarify what is required.
A The discrepancy between the specs that state “The barrier arm design shall be double rail aluminum tube” and the image shown on the drawing, the specs still control. The design must be – at a minimum – double rail aluminum tube. A tri-rail will be accepted as well. The key is meeting the minimum strength required in the spec. We show the third rail because that was something that we used on a previous project that ended up meeting the requirements.

5) **Q)** The barrier gate manufacturers are noting that the material spec calls for AISI 4150, but in recent years AISI 4140 has been accepted as an alternate because it is more readily available. Would AISI 4140 be an acceptable substitute?

A) We will accept AISI 4140 rather than AISI 4150 in the two places it is mentioned in the barrier gate specs (Section 2.13.5 and 2.13.10). We plan to include this with the next Addendum

6) **Q)** The requirement is for a Red Lettering over white background. Creating a direct view sign with the white LED background and the Red Lettering will cause significant image bleed and excessive brightness to drivers. This configuration can be made, but it would require many more power supplies to operate. Would NHDOT accept a Red Lettering on black background?

A) Addendum #1 included the special provision change that the Blank Out sign would read NO STOPPING on two lines in white legend on a black background. These requirements are in the edits to SP_615_Blankout Signs_ADDENDUM1_Edits.pdf in Section 2.11.

7) **Q)** The Lane Use signal is required to have 18” nominal size for the Red X, Amber X, and Green arrow. However, there is a difference between the drawing and the written spec. The drawing shows a 36” & 46” cabinet mounted. Is NHDOT looking for a small display in a large cabinet or does the cabinet size not really matter?

A) Please keep in mind the order of priority of the documents. The Special Provision states that the character size for the Lane Use Signals shall be 18” nominal. That is the controlling standard. If the Contractor is looking at the approximate cabinet size that has been shown on the Conceptual Plans, that was based on a single manufacturer’s example for the size and shape of a DMS panel that can provide the single character at 18” tall. It is not intended to be taken as a guideline or standard, but only as a Conceptual Plan for an approximate size. There is no specific requirement for the panel/cabinet size for the Lane Use Signal. If the Contractor can supply a lane use signal that meets or exceeds all of the requirements of Book 2: Technical Provisions and SP_677.x ITS Lane Use Signals.doc, the Owners will accept the size of the panel/cabinet required to provide this signal.

8) **Q)** Book 2, Section 3.3.4.1.A.d notes:
The checking of structural design shall include a set of independent calculations, performed by a qualified individual who did not perform the calculations for all structural elements. The designer and checker shall be clearly identified on the face of all calculation submissions.

The structures that are required for this project including the communication tower, ITS poles, RWIS poles, overhead sign structures, and similar elements do not typically require independent structural calculations. Please confirm that the Owners require this additional effort and increase in cost for this project.

A) It is understood that you want to confirm that the designs of structural elements prepared by vendors outside of the Contractor’s Team such as ITS poles, the comm tower, the RWIS tower, etc do not typically require independent structural calcs, meaning that the Contractor’s Team is not responsible to run independent calculations on the structural elements produced by a third party. To that question, you are correct, the structural elements prepared by vendors only require the Contractor to review as a QA/QC element as part of their reviewing and approving shop drawings. Structural elements prepared by the Contractor’s team will need to follow the requirements in the RFP.

9) **Q)** Can NHDOT make available SwRI's scope and details of the fixed price so that we can understand what they are fully responsible for?

A) We will make SwRI's scope and details of the draft agreement available via an upcoming Addendum.

10) **Q)** Does SwRI's scope and fixed price allow for the opportunity to significantly accelerate the System Deployment schedule identified in Appendix C if desired by the Contractor?

A) There is an opportunity to accelerate the System Deployment schedule, however that will have to be worked out between the Contractor and SwRI.

11) **Q)** Given Covid restrictions, will the need for the onsite project office still be required as noted in section 9 of the technical provisions? If yes, will any of the requirements be modified?

- a. Book 2- Technical Provisions
- b. Section 9- Project Office & Equipment
- c. Pages 97
- d. Paragraph 9.1-A

A) 1) Yes, the Owners still need an onsite project office as required in the RFP.

2) No, the requirements are not being considered to be modified.

12) **Q)** Please confirm the network connectivity for the fiber to the State of Maine network at the HLB? Sheet 62 of the 30% plans indicates 48 fiber strands to a cabinet and does not show any connection from there. Is it intended that this be terminated at the cabinet noted as 95-N-HLB(ME)-ICAB-X-MTA?

- a. 30% Design Plans
- b. Sheet 62

A) The Project requires a minimum 48-strand fiber optic connection between ITS Cabinets 95-N-HLB(ME)-ICAB-X-MTA and 95-N-HLB(NH)-ICAB-X-T, with an ultimate destination at the Communications Equipment Shelter located along Ranger Way. The fiber network shall allow for a collapsed loop network. The Project does not require a local communications connection between the devices from the HLB truss section to the south with the Maine Communications Equipment Shelter.

13) **Q)** Within conceptual plans sheet 11 Lane Use Sign detail, the cabinet is pole mounted but on ITS plans sheets cabinets are shown to be ground mounted. Please confirm if the cabinets can be mounted to sign poles.

- a. 30% Design Plans
- b. Sheet 11 and Sheets 36, 37, 38, 39, 41, 47, 48

A) Book 2: Technical Provisions Section 6.5.6.1.A states that the ITS field cabinets shall be ground mounted on a concrete base unless otherwise permitted by the Owner. The Lane Use (LUS) and Blank Out Message Signs detail included in Book 4: Conceptual Plans, Sheet 11 shows a pole mounted equipment cabinet. This detail indicates the Owners' permission for a pole mounted cabinet at stand-alone LUS and Blank Out Sign installations as part of the Contractor's system design.

- 14) **Q)** Is there a standard size generator the NHDOT and/or Maine DOT and/or MTA would prefer at the respective shelter locations or should these be sized to handle the current projected loading conditions?
- Book 2-Technical Specifications
 - Section 5.4.2.7.4 – UPS
 - Page 61
 - Paragraph E

A) There is no standard size required for NHDOT as long as all of the requirements of the RFP are met. MTA has updated their preference and this will be included with a future Addendum.

- 15) **Q)** Is there a fuel type preferred for the generator(s) at either the Maine or NH location?
- Book 2-Technical Specifications
 - Section 5.4.2.7.4 – UPS
 - Page 61
 - Paragraph E

A) For NHDOT, and in accordance with Special Provision 677 for Communication Equipment Shelters, Section 2.5.12, the generator shall be fueled by liquid propane (LP). MTA has updated their preference and this will be included with a future Addendum.

- 16) **Q)** Please confirm the inside dimensions requirements for shelters. Specifications refer to 2 different size shelters yet the same required internal SF @ 120SFt.
- Book 2
 - Section 5.4.2.7.5
 - Page 62
 - Paragraph C

A) The Owners will clarify this discrepancy as part of a future Addendum.

- 17) **Q)** Please provide a detailed construction schedule and updated completion date for the HLB project if available.

A) Attached is the latest tentative schedule from SPS for the Portsmouth - Kittery 16189 Bridge Rehab project. Also, please reference the response to question 8, which applies to question 7 as well.

18) **Q)** Please provide a detailed construction schedule and anticipated completion date for the paving project if available.

A) Attached is the latest tentative schedule from Brox for the Eastern Turnpike 41822 project.

Both schedules provided in response to questions #7 and #8 are subject to change and should not be considered to be part of any contractual obligation or commitment. Please refer to NHDOT's Standard Specification 105.07 regarding Cooperation between Contractors. The specification states, "*The Department reserves the right at any time to Contract for and perform other or additional work on or near the Work covered by the Contract. When separate Contracts are let within the limits of any one project or on adjacent projects, each Contractor shall conduct the Work without interfering or hindering the progress or completion of the work by other Contractors. Contractors working on the same project or adjacent projects shall cooperate with each other in a manner to serve the best interest of the State. In case of any unavoidable interference, the Engineer will determine priorities. Each Contractor involved shall assume all liability, financial or otherwise, in connection with the Contract and shall protect and save harmless the Department from damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project. The Contractor shall arrange the Work and place and dispose of materials being used without interfering with operations of the other Contractors within the limits of the same project or on adjacent projects. The Work shall be coordinated with the work and sequence of other Contractors.*"

19) **Q)** Hobbs Hill Water Tank will require an additional backhaul antenna. Should the contractor carry any money for lease amendments or rent for the additional equipment?

- a. 30% Design Plans
- b. Sheet 61

A) No, the 30% Plans currently show 1 additional antenna is needed on the Hobbs Hill Water Tank and NHDOT TSMO is currently in negotiations with the City for the extra lease space. If the Contractor's design alters this concept then a new lease agreement would need to be undertaken.

20) **Q)** Please confirm if 1 GB fiber uplinkports for 10/100 ethernet switches is desired at ITS field cabinets. Are SFP ports desired?

- a. Book 2-Technical Specifications
- b. Section 5.4.3.1.A
- c. Page 65
- d. Paragraph a.

A) 1 Gbps Ethernet Switches are required for all ITS field cabinets. The specifications specify SFPs as optional to integral fiber ports. The switches shall be capable of being upgraded in the future with fiber uplinks and be fiber ready. This will be addressed with a future Addendum.

- 21) **Q)** What UPS manufacturer has the State of NH approved most recently? Does the State of NH have a preferred UPS manufacturer?
- Book 2- Technical Specifications
 - Section 5.4.3.3.1
 - Page 67
 - Paragraph A

A) As an example, Marathon and Alpha have been approved recently, however that does not guarantee that they will be approved in the future. The Owners will only accept a UPS that meets or exceeds the requirements included in the RFP Documents.

- 22) **Q)** Please confirm if there is adequate space in the existing cabinet at the Hobbs Hill Water Tank site for the new equipment associated with this project including the UPS and ethernet switch. Is it the intent of the design for the contractor to provide a new cabinet?
- Book 3 Special Provisions
 - Section 677.31
 - Page 100
 - Paragraph 2.4

A) The existing cabinet is nearing space capacity. If the Contractor's proposed design requires additional space then the Contractor is required to provide a bigger cabinet.

- 23) **Q)** Does the NHDoIT intend to move the existing Milestone server, currently installed at the Sarah Long Bridge (SLB), over to the new shelter after the shelter and tower have been constructed and the new microwave path(s) have been installed? If so, when?
- Book 1
 - Appendix A- Background information
 - Page 43
 - Paragraph A-2.1, Bullet #5

A) No, the plan is for NHDoIT to install a new recorder in the Shelter for the High Level Bridge Project once the shelter is ready. Cameras will be connected to the new recorder in the shelter by the Contractor. The new recorder will have a full installation of Milestone XProtect Corporate Edition to allow local login if the communications to the TSMO Bureau in Concord fail. NHDOT TSMO already has the Milestone XProtect Corporate Edition needed. However, we are open to recommendations with regards to improving the design for resiliency.

24) **Q)** For the DMS, twelve 18” characters on a 12’ 1” wide sign is specified which does not meet the proper intercharacter spacing per MUTCD. The DMS would not be wide enough to display twelve 18” characters. Is there a revised character spec or DMS size requirement that we should follow for this?

- a. Book 2 - Technical Provisions
- b. Section 5.4.2.3.1
- c. Page 53
- d. Paragraph A
- e. 30% Design Plans
- f. Sheet 10

A) In accordance with Special Provision 677 for post-mounted DMS, Section 2.7, the DMS shall be a Ver-Mac B-1500C or approved equivalent. This unit provides 3 lines at 12 characters per line with a reduced font size (3 pixels by 7 pixels per character). This unit has a default setting of 3 lines at 9 characters per line with the MUTCD typical character size of 5 pixels by 7 pixels per character. The DMS shall be capable of displaying 12 characters at the discretion of the Local Authority (MTA).

25) **Q)** Is analysis of the existing bridge structure required to be submitted as part of the structural calculations/design.

- a. Book 2 - Technical Provisions
- b. Section 5.3.2
- c. Page 39
- d. Paragraph b.

A) The Owners have completed preliminary structural analyses on the devices proposed to be attached to the HLB as part of the RFP development for the equipment as shown in the Conceptual Plans. The Contractor is required to provide structural calculations for all other system equipment and attachments to all other pre-existing support structures in accordance with Book 2: Technical Provisions, Section 5.4.2.G and for all new structures in accordance with Book 2: Technical Provisions, Section 5.3.2.D.b.

26) **Q)** Are the owners willing to provide the Preliminary Geotechnical Engineering Report?

- a. Book 2 - Technical Provisions
- b. Section 5.3.2.D
- c. Page 40
- d. Paragraph c.

A) The Geotechnical Engineering Report will be added to an upcoming Addendum.

- 27) **Q)** Attachment 19-Maine CE – Special Provision 105 was included in the CE document but not in the procurement documents. Will the contractor be responsible for any issues regarding the Peregrine Falcon or keeping them from nesting on the bridge?
- Attachment-19-16189B-NEPA-Programmatic-CE
 - Special provision 105
 - Page 54
 - Paragraph I

A) Special Provision 105 contains environmental commitments made by the project partners for the parent project. As such, this and all other conditions are applicable to all child projects including the 16189B. The Contractor will be responsible for conducting the annual meetings and assisting the MaineDOT Environmental Office (and the NHDOT Bureau of Environment) in any nest exclusion efforts deemed necessary.

- 28) **Q)** Attachment 20, page 2, paragraph 1 - Are field investigations and coordination with NHB and/or NH Fish & Game required?
- Attachment_20_16189B_NHDOT Adopt CE
 - Section N/A
 - Page 2
 - Paragraph 1

A) Field investigations and coordination with NHB and/or NH F&G will only be needed if the Contractor's methods of construction are outside the roadway structure of I-95 (toe of slope – toe of slope). As long as the Contractor does not disturb anything that has not been previously disturbed by the roadway construction then no additional coordination will be needed.

- 29) **Q)** Attachment 20, page 3, paragraph 7 - Who is responsible for making sure bats are not nesting in the bridge?
- Attachment_20_16189B_NHDOT Adopt CE
 - Section N/A
 - Page 3
 - Paragraph 7

A) NHDOT Bureau of Environment will be responsible for making sure that the bats are not nesting in the bridge. If bats are found to be present, work will not be allowed to start until the Bureau of Environment has coordinated with and obtained authorization from the US Fish and Wildlife Service. It is requested that the Contractor provide the Bureau of Environment with at least a 30-day notice prior to the commencement of any work on any structure so that a site inspection can be conducted as necessary.

- 30) **Q)** The RFP states that “hardware that is currently not supported by the NE Compass ATMS, the Contractor shall be responsible for writing the software code necessary to integrate the required hardware to functionally operate the system. This may include contracting with SwRI to produce the necessary software coding to integrate the new devices.” Does the NE Compass ATMS include existing code to integrate a lane use (LUS) subsystem, a flashing beacon subsystem, barrier gate subsystem, and the RTMS Sx-300 sensor?
- a. Book 1
 - b. Section 3
 - c. Page 19
 - d. Paragraph 3.1-Software

A) NE Compass does not currently have the existing code to integrate a lane use (LUS) subsystem, a flashing beacon subsystem, or barrier gate subsystem, however the proposed agreement for \$700K in the RFP does include this effort. Support for the RTMS Sx-300 sensor is not included in the \$700K quote from SwRI. The Contractor will have to reach out to SwRI for integration of that specific device since it hasn't been integrated before, which will be a separate cost incurred by the Contractor. This will be clarified in an upcoming Addendum.

- 31) **Q)** The Operational Acceptance Test is stated as 60 days in the RFP.
- a. Book 1
 - b. Section- Appendix G-2
 - c. Page 77
 - d. Table G-2.2- User Acceptance Testing

But is also stated as a 30-day test in the Special Provisions.

- a. Book 3 - Special Provisions
- b. Section 3.7
- c. Page 185
- d. Paragraph 3.7.1

Please clarify the operational Acceptance Test requirements.

A) The project intent is that the Operational Acceptance Test Period for all project equipment systems and subsystems shall be 60 consecutive days or 24 hours of active PTSU operations, whichever is longer. The Special Provision 677 ITS Equipment Base Specification has been revised and will be part of an upcoming Addendum #2. All other references to a different Operational Acceptance Test Period or to a User Acceptance Test period shall be understood to mean the User Acceptance Testing as defined in Book 1: RFP, Appendix G-2.

- 32) **Q)** What is the available network backhaul bandwidth on the existing microwave path between Hobbs Hill WT and Blue Job Mountain?
- Book 2 - Technical Provisions
 - Section 5.4.2.7
 - Page 57
 - Paragraph B.

A) The last time this was checked there was in excess of 75 Mbps of unused bandwidth on the two microwave path(s) from Hobbs Hill to Mount Bluejob through the Spaulding 12.4 Comm pole.

- 33) **Q)** Will the Troop A to Hobbs Hill WT microwave path be used as a backhaul path for this project? Please confirm available throughput.
- Book 2 - Technical Provisions
 - Section 5.4.2.7
 - Page 57
 - Paragraph B.

A) No, this path is not used at all at this time. A true bandwidth capacity to the NHDOT TMC of this path is not measurable at this time.

- 34) **Q)** Will MTA be responsible to order and coordinate the installation and testing of the new high bandwidth communication system at the new communications shelter? When will this be completed?
- Book 1
 - Appendix A
 - Page 43
 - Paragraph A-2.2

A) Yes, MTA will be setting up the communication service for the communications shelter. Once a finalized location is established with an official 911 address, MTA can get Consolidated mobilized, even if the building isn't in place yet. This process usually takes 45-60 days for construction.

- 35) **Q)** When does NHDoIT anticipate the completion of the backhaul link between Hobbs Hill WT and Memorial Bridge (noted as "reallocate")?
8. attachment_10_16189B_PortsmouthBridgeRedundancy
 - Page 1

A) This work will be done prior to the Construction of the new microwave path by the Contractor.

36) **Q)** The RFP is vague regarding bonding requirements and format. Will a Bid Bond be Required? If yes, what is the percent of the contract amount required for the Bid Bond? Is a Performance and Payment Bond required? Reference sections below indicate bonding may be required.

- a. Book 1
- b. Section Appendix E
- c. Page 62
- d. Paragraph E-1.1.2 Corporate Overview

- a. Book 1
- b. Section II
- c. Page 30
- d. Paragraph 4.18.5

A) 1) Yes we need a Bid Bond

2) 5% of the contract amount is required for the Bid Bond

3) Yes a Performance and Payment Bond is required

This will also be included in the upcoming Addendum.

37) **Q)** Eversource stated that they typically do not provide any upfront design work without a work order. Does the State or its consultants have a current work order? Eversource wasn't aware of the project. Would it be possible to get a work order set up with Eversource so that they could discuss the aspects of the project?

A) The RFP states that Utility Coordination will be performed by the Design-Build Team. NHDOT has not contacted Eversource regarding this project. It was anticipated that any power requirements would be coordinated by the Design-Build Team and the respective power company. The Design-Build Team is in the position to best describe their power requirements and needs for their planning process. If the Department requests a work order, Eversource could require a Utility Agreement for payment of invoices. Eversource prepares a work order for all work efforts whether with the DOT or any other customer. We would be surprised if Eversource would not create a work order for this effort. Your Team should explain that it is for a DOT project and that you will be responsible for the utility coordination if your Team is the winning Team.

Sincerely,

Charles E. Blackman

Charles E. Blackman, PE
NHDOT - Project Manager